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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,530	08/19/2002	Daniel Charquet	12093/887	9258

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EXAMINER

KEITH, JACK W

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,530

Applicant(s)

Charquet et al

Examiner

Jack Keith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 19, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 8-14 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 8-10, drawn to a product (composition of a zirconium alloy).

Group IIA, claim 11, drawn to a use of product (cladding tube).

Group IIIA, claim 12, drawn to a use of product (flat bar).

Group IIIB, claim 13, drawn to a process of making product (nuclear components).

Group IIB, claim 14, drawn to a process of making product (tubing).

2. The inventions listed as Groups I, IIA, IIIA, IIB and IIIB do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I and IIA/IIIA/IIB/IIIB are related as subcombination and combination.

Group IIA and IIB are related as product and process of making product (tubing).

Group IIIA and IIIB are related as product and process of making product (flat components).

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Group IIB and IIIB are related as combination and subcombination.

As set forth in PCT Rule 13.2 the inventions listed above do not fall within the permitted combinations of different categories of inventions. Furthermore there is no special technical feature that defines a contribution which each of the inventions, considered as a whole, makes over the prior art.

3. Upon election of one of Group I, IIA, IIB, IIIA or IIIB identified above - the applicant is further required to elect a single species for the zirconium-based alloy (This additional requirement is to facilitate examination due to the broad range of materials or combination of materials that can be included in the zirconium-based alloy).

Applicant is required to elect the constituents of the zirconium alloy to include percentages, ppm and, if applicable, the ratios (as set forth in claim 8).

Note: In regard to the single ultimate species election the election should not be open-ended (i.e., comprising). An open-ended election will be considered non-responsive.

4. Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the

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limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The reasons are the same as those set forth above in section 2.
6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Keith whose telephone number is (703) 306-5752. The examiner can normally be reached on Monday through Friday from 7:00 to 4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

A handwritten signature in black ink, appearing to be 'Jack Keith', with a stylized, sweeping flourish extending from the end of the signature.

Jack Keith
Examiner,
Art Unit 3641

jwk

April 3, 2003

DETAILED ACTION

Claim Rejections - 35 USC § 102 and 35 USC § 103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by Van Swam et al (EP 0 533 073).

Van Swam (column 4, lines 7-11) discloses applicant's inventive concept. A zirconium alloy containing: 0-3% niobium, 0-1.0% tin, 0-0.5% iron, 0-0.3% chromium, 0-0.3% nickel, 0.05-0.20% (500-2000 ppm) oxygen and the remainder to impurities.

Van Swam (column 3, lines 40-55) indicates the normal range of commercial impurities such as carbon 270 ppm or less, oxygen 900 ppm or less and silicon 120 ppm or less. Clearly given the state of the prior art (Van Swam) one of ordinary skill in the art could practice the claimed invention.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sabol et al (4,649,023).

Sabol discloses applicant's inventive concept. A zirconium alloy containing: 0.5-2.0% niobium, up to 1.5% tin, and up to 0.25% of a third element such as iron, chromium, molybdenum, vanadium, copper, nickel and tungsten. Sabol further discloses an example zirconium alloy consisting of: 1.0% niobium, 1.0% tin, and 0.1% iron. The example alloy further provides the claimed ranges of applicant's carbon (60-70 ppm), silicon (50 ppm) and oxygen (1370-1490 ppm) contents.

The example alloy of Sabol discloses a tin content greater than applicant's claimed tin content (0.2-0.6%); however, such variation in the tin content is well within the skill of the average artisan. Further Van Swam et al (EP 0 533 073) (column 3, lines 40-55) indicate the normal range of commercial impurities such as carbon 270 ppm or less, oxygen 900 ppm or less and silicon 120 ppm or less. Clearly given the state of the prior art (Van Swam) one of ordinary skill in the art could practice the claimed invention.

Note that the use of a secondary reference in connection with a 35 U.S.C. 102 rejection is proper when the secondary reference is cited to show that the primary reference contains an "enabling disclosure". See MPEP § 2131.01.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Anada et al (JP 63-145735).

Anada discloses applicant's inventive concept. A zirconium alloy containing: 0.1-1.2% niobium, 0.2-1.2% tin, less than 0.25% iron, less than 0.20% chromium, less than 0.3% nickel, and the remainder to impurities.

Van Swam et al (EP 0 533 073) (column 3, lines 40-55) indicate the normal range of commercial impurities such as carbon 270 ppm or less, oxygen 900 ppm or less and silicon 120 ppm or less. Clearly given the state of the prior art (Van Swam) one of ordinary skill in the art could practice the claimed invention.

Note that the use of a secondary reference in connection with a 35 U.S.C. 102 rejection is proper when the secondary reference is cited to show that the primary reference contains an "enabling disclosure". See MPEP § 2131.01.

Response to Arguments

6. Requestor's arguments regarding claims 5-8 of 5,940,464 have been fully considered but they are not persuasive.

Requestor's combination of Sabol et al (4,649,023) and Nikulina et al (5,560,790) is improper. Note column 8, lines 28-32 of Nikulina wherein a low Sn content (below 0.9%) of the material [zirconium alloy] affects both the short and long time breaking strength thereof. Besides such a low Sn content suppresses to a lower extent a harmful effect of N admixture on the corrosion resistance of the material. Clearly Nikulina teaches away from the claimed process of 5,940,464.

Accordingly, claims 5-8 remain allowable over the prior art of record.

Reexamination

7. In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, which will be strictly enforced.

8. The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 5,940,464 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Keith whose telephone number is (703) 306-5752. The examiner can normally be reached on Monday through Friday from 7:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carney, can be reached on (703) 306-4198. The fax phone number for the organization where this application is proceeding is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

jwk
May 9, 2001